Aluminium Composite Panels for Exterior Cladding & Architectural Facades

A technical overview of Alutuff ACP and AHPL panel systems for building envelopes, ventilated facades and architectural elevations

1. Introduction

Aluminium composite panels (ACP) have become one of the most widely specified materials for building exteriors in India, used across residential towers, commercial complexes, retail storefronts and institutional facades. Their appeal for cladding applications comes down to a combination of light weight, dimensional stability, weather resistance and a wide range of finish options that let architects match a design vision without the load, cost and maintenance burden of stone or metal sheet alternatives.

Alutuff, manufactured in Bareilly, Uttar Pradesh under the Ashoka Foam Multiplast Ltd. group, produces two panel systems built specifically for exterior use: standard ACP and AHPL (Aluminium High Pressure Laminate), a heavier-duty variant aimed at facades with higher structural and fire-performance requirements.

2. Alutuff ACP — Composition & Build

Alutuff ACP panels are constructed from a low-density polyethylene (LDPE) core sandwiched between two aluminium coil sheets, bonded with an adhesive film. The outer coil is coated in a PVDF primer, followed by a PVDF base coat and clear top coat, with a removable protective film applied over the finished surface for transport and installation.

ACP Panel Specifications

Attribute	Detail
Core material	Low-density polyethylene (LDPE)
Panel thickness	3 mm – 5 mm
Aluminium coil thickness	0.15 mm – 0.5 mm
Surface coating	PVDF primer, base coat and clear top coat
Colour range	50+ standard shades; custom solid and wood-finish colours on order volume
Warranty	15 years

3. Alutuff AHPL — High-Pressure Laminate Panels

AHPL is Alutuff's heavier-duty facade panel, built around a high-density polyethylene (HDPE) core faced with 3003-series aluminium alloy coil. The denser core and alloy-grade coil give

AHPL better thermal and acoustic insulation than standard ACP, along with fire-resistant performance, making it suited to facades where local building codes or project specifications call for a higher fire rating.

AHPL Panel Specifications

Attribute	Detail
Core material	High-density polyethylene (HDPE)
Aluminium alloy	3003 series coil
Panel thickness	5 mm – 7 mm
Aluminium coil thickness	0.25 mm – 0.5 mm
Key advantage over ACP	Fire-resistant, higher insulation value
Warranty	15 years

Alutuff also offers a Facia AHPL line finished in wooden, sand, marble and other natural textures, aimed at architects who want the visual character of natural materials with the durability, flexibility and termite resistance of an engineered panel.

4. Why ACP/AHPL Performs Well as Exterior Cladding

- Weather and UV resistance — the PVDF coating is formulated to hold colour and gloss under sustained sun and rain exposure, which matters for elevations facing direct weather.
- Water, fungus and termite resistance — relevant for facades in humid or coastal regions where organic growth and pest damage degrade lesser materials over time.
- Acoustic and thermal insulation — the polyethylene core dampens sound transfer and adds a layer of thermal insulation to the building envelope.
- Lightweight, fast installation — panels are easy to cut, route and fix to a substructure, reducing structural load compared to stone or solid metal cladding, and speeding up building envelope installation.
- Recyclability and green building value — the panels are 100% recyclable, and their contribution to insulation and durability can support LEED rating credits on a project.
- Local stock availability — panels are manufactured in India and stocked in warehouses across cities, shortening lead times for cladding contractors compared to imported panel systems.

5. Colour, Texture & Customisation

Standard ACP is available in 50-plus ready shades spanning solid colours and wood-tone finishes, with custom colour development available for larger project quantities — a common requirement for facade packages that need to match a brand palette or architectural drawing set. The Facia AHPL range extends this into natural-material textures (wood, sand, marble) for projects where the brief calls for a warmer, less industrial elevation finish.

6. About Alutuff

Alutuff is the ACP and AHPL brand of Ashoka Foam Multiplast Ltd. (AFML), part of the Ashoka Foam group, which has operated in home furnishings and industrial materials since 1978 and holds ISO 9001 and OHSAS certification. The panel manufacturing unit is based in Bareilly, Uttar Pradesh, and the brand supplies through a dealer and distributor network spanning multiple cities across India, supporting architectural cladding and interior panel projects nationwide.

7. Summary

For architects and contractors evaluating exterior cladding systems, Alutuff's ACP and AHPL ranges cover both ends of the specification curve — a lighter, cost-efficient ACP for standard elevation cladding, and a fire-resistant, higher-insulation AHPL for facades with stricter performance requirements. Both carry a 15-year warranty, ship from India-based stock, and are available in a colour and texture range wide enough to match most architectural finish schedules.

Source: alutuff.in / alutuff.net — product specification pages.